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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,753	12/04/2003	Johann Meseth	TER-02P0020	7612

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EXAMINER

GREENE, DANIEL LAWSON

ART UNIT PAPER NUMBER

3641

DATE MAILED: 06/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.		Applicant(s)	
	10/727,753		MESETH, JOHANN	
	Examiner		Art Unit	
	Daniel L Greene Jr.		3641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2003.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/04/03, 3/10/04</u> | 6) <input checked="" type="checkbox"/> Other: <u>additional IDS dated 9/17/04</u>       |

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

2. Signed and dated IDS received 12/4/2003, 9/17/2004 and 3/4/2004 are attached to the instant application

### ***Drawings***

3. The drawings received 12/29/2003 are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the oblique downward inclination must be shown or the feature canceled from the claims. No new matter should be entered. It is noted that Fig. 2 appears to show the outlet nozzle to be parallel to the base of the condensation chamber.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate

changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

### ***Specification***

6. **The specification is objected to under 35 U.S.C. 112, first paragraph, as failing to provide an adequate written description of the invention and as failing to adequately teach how to make and/or use the invention, i.e. failing to provide an enabling disclosure.**

- a. There is no adequate description or enabling disclosure of how and in what manner the non-condensable gases are diverted out of the vicinity of the building condenser by the condensation tube per the specification page 12 lines 20-23. The specification page 12, lines 3-5 disclose that the non-condensable

gasses collect in the upper region of said pressure chamber. Figure 1 indicates the condensation tube inlets are near the middle of the pressure chamber therefore it does not appear that once the pressure of the water column is overcome that non-condensable gasses will be diverted out of the vicinity of said building condenser.

b. There is no adequate description or enabling disclosure of how and in what manner the oblique angle of the nozzle gives rise to a substantially horizontal outflow over a significantly larger area as disclosed in the specification page 7 lines 8-20. It seems a standard horizontal discharge nozzle known in the art would also provide a substantially horizontal outflow and the specification fails to show how and in what manner the oblique angle allegedly enhances said outflow.

c. There is no adequate description or enabling disclosure of what all is meant by and encompassed by the phrase "a significant part of the condensation tube is embedded in the wall of the condensation chamber". See page 6 lines 24+ and page 15 lines 8-17. The specification fails to provide a basis for the metes and bounds of the term "significant" including how much of the tube is embedded in the concrete, how much sticks out of the concrete, etc. Figure 1 shows what is considered a "significant" part of the condensation tube protruding upwards from the concrete while figure 2 shows the pipe almost completely embedded, therefore the metes and bounds of the term "significant" is undefined.

- d. There is no adequate description or enabling disclosure of what all is meant by and encompassed by the phrase "substantially shielded". The specification fails to provide a basis for the metes and bounds of the term "substantially" including how and in what manner said shielding is accomplished.
- e. There is no adequate description or enabling disclosure of what all is meant by and encompassed by the phrase "substantially vertical condensation tube". The specification fails to provide a basis for the metes and bounds of the term "substantially vertical" including at what angle the condensation tube is no longer considered to be vertical.
- f. There is no adequate description or enabling disclosure of what all is meant by and encompassed by the phrase "approximately 70 to 85 degrees". The specification fails to provide a basis for the metes and bounds of the term "approximately" including what angle of the elbow is no longer considered to be approximately those disclosed by applicant.

In this regard, it seems that the angle of the elbow would actually be more considered to be 95 to 110 degrees since a 70 to 85 degree elbow would cause the outlet to point upwards instead of downwards. Although applicants are allowed to be their own lexicographers, they are not supposed to define terms repugnant to the standard meanings. The reference point of the measurement of the angle of the elbow seems repugnant to the typical reference point used to measure elbow angles in the United States.

***Claim Rejections - 35 USC § 112***

**7. Claims 1-5 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention for the reasons set forth in section 6 above.**

**8. Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention:**

a. Claim 1 is vague, indefinite and incomplete as to what all is meant by and encompassed by the term "obliquely" since there is no structure disclosed in the claim that the nozzle is oblique to. Hence the metes and bounds of the claim are undefined.

b. Claim 1 is vague, indefinite and incomplete as to what all is meant by and encompassed by the phrase "substantially vertical" See the discussion of this phrase in section 6 above. Hence the metes and bounds of the claim are undefined.

c. Claim 1 is vague, indefinite and incomplete as to what all is meant by and encompassed by the phrase "substantially shielded" See the discussion of this phrase in section 6 above. Hence the metes and bounds of the claim are undefined.

d. Claims 3 and 4 are vague, indefinite and incomplete as to what all is meant by and encompassed by the term "substantially" and "approximately".

See the discussion of this phrase in section 6 above.

It is noted that the specification utilizes the terms approximately to describe the angles, however claim 3 utilizes the term substantially. Obviously there must be some difference between these modifiers otherwise the claim language would mirror that in the specification. Without a disclosing the requisite characteristics of the terms substantially and approximately, one with ordinary skill in the art would not be apprised of the metes and bounds of the angles applicant is seeking protection for, hence the metes and bounds of the claim are undefined.

Additionally, although applicants are allowed to be their own lexicographers, they are not supposed to define terms repugnant to the standard meanings. Claims 3 and 4 require the angle of the elbow to be less than 90 degrees. The reference point of the measurement of the angle of the elbow seems repugnant to the typical reference point used in the United States.

e. Claim 5 is vague, indefinite and incomplete as to what all is meant by and encompassed by the term "significant". See the discussion of this phrase in section 6 above. Hence the metes and bounds of the claim are undefined.



***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1 and 3-5 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by U.S. Patent 5,021,212 to Kataoka et al. (hereinafter Kataoka)

Kataoka discloses a containment of a nuclear power plant, comprising:

A containment structure (7) having a pressure chamber (4) and a condensation chamber (31) (also known in the art as a suppression pool), a significant portion of a substantially vertical condensation tube (5) embedded in a wall of said condensation chamber with a lower end immersed in a cooling liquid (6), said lower end being formed with an elbow and outlet nozzle (20), said elbow angle causing a lower end to be immersed obliquely in the cooling liquid and said outlet nozzle having an outlet opening substantially shielded with respect to the base of the condensation chamber, in figures 1, 2, 6 and 7, column 5 lines 28+, wherein it is understood that the elbow is oblique to the upper most part of the primary containment near arrow (7) and the water between said outlet opening and base substantially shields said opening.

Regarding claims 3 and 4, it is considered that the limitation “substantially” and “approximately” includes the angle disclosed in the reference.

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. **Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kataoka as applied to claims 1 and 3-5 above and further in view of U.S. Patent 4,986,956 to Garabedian.**

Kataoka discloses applicant's invention as explained above, however Kataoka does not expressly disclose that the lower side of the outlet nozzle is longer than the upper side.

Garabedian column 6, lines 11-15 teach is it old and advantageous to cut the angle of the outlet nozzle at a 45 degree angle for the benefit of eliminating

major hydrodynamic pressure disturbances due to a chugging type of steam condensation.

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify the outlet nozzle of Kataoka with a 45 degree angle thereby providing an outlet nozzle formed with a lower side longer than the upper side, for the benefit of eliminating major hydrodynamic pressure disturbances due to a chugging type of steam condensation as shown to be old and advantageous by the teachings of Garabedian above.

### ***Conclusion***

13. Examiner's Note: Examiner has cited particular columns and line numbers in the references as applied to the claims for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant, in preparing the responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.


14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel L Greene Jr. whose telephone number is (571) 272-6876. The examiner can normally be reached on Mon-Fri 8:30am - 5pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael J Carone can be reached on (571) 272-6873. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

16. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DIG   
5/27/2005

  
MICHAEL J. CARONE  
SUPERVISORY PATENT EXAMINER